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ABSTRACT

This study investigated selected attitudinal and demographic factors, involvement, and philanthropic awareness of alumni donors and non-donors from a Research I, public university. A random sample of 500 alumni (250 donors and 250 non-donors) was selected from a population of 37,691, resulting in 371 (74 percent) usable surveys. Discriminant function analysis was applied to the data to determine if group membership for donor status (donor or non-donor) and group membership for donor level could be predicted. The study revealed that donor or non-donor status for alumni is predictable with a moderate-to-high degree of accuracy. The most powerful discriminating variables between alumni donors and non-donors within the population examined were: family income, perceived need for financial support, reading alumni publications, subsequent enrollment for graduate work, belonging to a special interest group, and involvement with the university as an alumnus. The most powerful discriminating variables between high- and low-donors within the population examined were: subsequent enrollment for graduate work, family income, perceived need for financial support, involvement with the university as an alumnus, participation in the Greek system or departmental club/organization, and religious preference. The study suggests that university development and alumni offices should work collaboratively in inviting alumni to participate in events that parallel activities reflective of alumni interests during their time as students. (Contains 17 references.) (GLR)

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PREDICTING ALUMNI GIVING AT A PUBLIC RESEARCH UNIVERSITY

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Jean Endo
Chair and Editor
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ABSTRACT

This study was an investigation of selected attitudinal, demographic, involvement, and philanthropic characteristics of alumni donors and non-donors from a Research I, public university. A random sample of 500 alumni (250 donors and 250 non-donors) was selected from a population of 37,691. There were 371 (74%) usable surveys returned. A discriminant function analysis was used to predict group membership of donors versus non-donors, and high-donors versus low-donors. Using the classification step, 65 percent of the alumni were correctly classified as donors or non-donors, and 87 percent of the alumni high-donors and low-donors were correctly classified.

Obtaining adequate financial resources to meet educational and institutional needs continues to be a major problem for colleges and universities. While institutions solicit funds from the corporate and private business sector, alumni also represent an important source of funding. Understanding the factors influencing alumni giving is essential if it is to be a regular part of the institution's revenue process (Bristol, 1990). Research on alumni as a funding source reveals different reasons for which alumni contribute to their alma mater. Leslie and Ramey (1988) reported that alumni contributions are usually based upon a desire to repay the institution for an education received or are based upon an increased recognition of the academic benefits provided by the institution. Alumni involvement in fund raising projects and activities reflects a positive psychological commitment to the institution, generating enthusiasm and momentum for reaching those who are less committed (Loessin, Duronio and Borton, 1986). Shadoian (1989) pointed to another benefit derived from alumni financial stewardship which could enhance the potential for support from other private sources stating, "...alumni giving is the single most important index of esteem in which the institution is held by a key group of individuals" (p. 1).

The process of building a knowledge base on alumni donors should be independent of the size of their gifts. Knowledge of all donors is important. Once alumni become donors, regardless of the size of their gifts, they are likely to continue their support through the years (Eldridge, 1964).

While donor consistency is important to alumni giving, number of donors and size of gift are of similar importance to comprehensive fund raising programs. Donors and non-donors have different relationships with their alma mater and, therefore, are expected to be

treated in a more individual manner. Melchiori (1988) acknowledged the importance of nurturing people with the greatest probability of giving major gifts differently from the consistent but average giver. Thus, an important function of fund raising is to develop a process that will segment groups of alumni into more defined prospect pools. This process is possible because the characteristics associated with giving and the relationships between donors and their alma mater are often controlled by the institution (Leslie and Ramey, 1988). Understanding the giving relationship between donors and their alma mater is useful information in developing effective fund raising strategies.

While there is ample literature on organizing, planning and administering annual funds, the information about characteristics of alumni donors is lacking (Shadoian, 1989). Higher education administrators in alumni and development work could use their time in fund raising more effectively if they could predict more accurately those alumni who are likely to become donors.

Purpose

The purpose of this study was to learn about the philanthropic behavior of alumni donors and non-donors from a Research I, public university. Through the examination of findings from this study on attitudinal, demographic, involvement, and philanthropic variables, development professionals may improve their ability to discriminate alumni donors from non-donors. Also, annual fund raising can be improved if a reliable approach to identifying potential donors from non-donors can be developed for use in campaign strategies.

Although alumni giving is the largest donor category within institutions of higher education (Council for Aid to Education, 1989), it remains a source of income that has not been fully developed or understood. This study focused on predicting alumni into donor and non-donor groups. In addition, donors were then predicted into high- and low-donor groups.

Methods

Setting and Sample

This study was an ex post facto descriptive study of alumni at a Research I, public university. The study population represented 37,691 (20,441 donors and 17,250 non-donors) alumni living in the United States, who graduated from the study institution between the years 1975 through 1985. A random sample of 500 alumni, 250 donors and 250 non-donors, was selected from the population.

Data Collection

A thirty-two item self-reporting survey instrument designed by the researchers was used to collect data for the study. The items selected for inclusion in the questionnaire were supported from research findings in the literature.

The dependent variables included donor and non-donor alumni groups. Donors were those graduates who made financial contributions during 1980-1992, inclusive, and non-donors were those who did not make contributions during the same period. Also, the donors were grouped into high- and low-donor categories. High-donors were those whose contribution total was among the highest twenty percent when compared with all alumni donors in the sample during 1980-1992. Low-donors were those whose contribution total was among the lowest twenty percent of the sample.

Four categories of independent variables were selected on the basis of the review of literature and for the discriminating statistical significance of the variable in previous studies. The independent variables categories were attitudinal, demographic, involvement, and philanthropic.

Attitudinal variables referred to "emotional attachment to the university" (Beeler 1982, and Shadoian, 1989), "satisfaction with educational experience" (Shadoian, 1989 and Oglesby, 1991), "recommending the university to others" (Shadoian, 1989), "satisfaction with preparation for first job after graduation" (Shadoian, 1989), and "perceived need for financial support" (House, 1987).

Demographic variables included "distance of permanent residence from campus" (Beeler, 1982 and Oglesby, 1991), "year of graduation" (Shadoian, 1989), "total years of attendance as an undergraduate and graduate student" (Beeler, 1982), "highest degree received from university" (Beeler, 1982), "school attended within the university" (Beeler, 1982 and Shadoian, 1989), "academic major" (Grill, 1988), "recipient of scholarship or grant" (Grill, 1988 and Shadoian, 1989), "subsequent enrollment for graduate work" (Shadoian, 1989), "number of children" (Beeler, 1982), "age range of children" (Haddad, 1986), "birth order" (Ryan, 1990), "religious preference" (Morris, 1970 and Oglesby, 1991), "political affiliation" (Gardner, 1975 and McKinney, 1978), "occupation" (Grill, 1988 and Shadoian, 1989), "family income" (Grill, 1988), "age" (Grill, 1988 and Oglesby, 1991), and "gender" (Grill, 1988 and Oglesby, 1991).

Involvement variables included "post-graduate participation in campus events" (Grill, 1988), "involvement with university as an alumnus/a" (Oglesby, 1991), "maintaining contact

with faculty, administrators and staff (Shadoian, 1989), "reading alumni publications" (Grill, 1988 and Shadoian, 1989), and "involvement in extracurricular activities" (Grill, 1988).

Philanthropic variables referred to "financial support to the university," "spouse contributes to one's alma mater" (Oglesby, 1991), "support other charitable causes" (House, 1987 and Oglesby, 1991), "active volunteer in community work or organizations" (Markoff, 1978), "active in civic organizations" (House, 1987), and "active volunteer for a political organization" (House, 1987). These variables were expected to influence donor status.

Data Analyses

The discriminant function analysis, using the SPSS-X subprogram DISCRIMINANT, was used as the primary statistical method to predict group membership of donors and non-donors and the prediction of membership in the low-donor and high-donor levels.

The discriminant function analysis was applied to the data to determine if group membership for donor status (donor or non-donor) and group membership for donor level (low-donor and high-donor), could be predicted. Discriminant analysis is used when the criterion variable (giving) is the classification of the sample into two or more discrete groups (donor versus non-donor, low- versus high-donor levels). The categories have already been defined (donor status and donor level) and each subject (alumnus/a) categorized into a group. The discriminant analysis equation provides an estimate of the contributions of the predictors (attitudinal, demographic, involvement, and philanthropic characteristics) to correct classification of the individuals (alumni) into the groups (donor, non-donor, low- or high-donor). "The researcher can conclude whether or not the collection of predictors correctly classifies individuals into groups and which of the variables contribute significantly

to the prediction of group membership" (Smith and Glass, 1987, p. 217).

Results

The findings included six of the selected variables as discriminators between the donor and non-donor groups (Table 1).

Table 1. Canonical Discriminant Function for Donor Status

total cases=371	donor group=210	non-donor group=161
canonical correlation 0.3433421	Wilks' lambda 0.8821162	chi-square 45.908*
variable order of entry		standardized canonical coefficient
Family income		-0.47184
Perceived need for financial support		0.43873
Reading alumni publications		0.38821
Subsequent enrollment for graduate work		-0.33117
Special interest group		0.30999
Involvement with university as an alumnus/a		0.29235

*Significant at the .05 Level

One of the attitudinal variables had discriminating power between the donor and non-donor groups ("perceived need for financial support"). Two of the demographic variables were shown to have discriminating powers between the donor and non-donor groups ("family income" and "subsequent enrollment for graduate work"). Three involvement variables discriminated between the donor groups ("reading alumni publications", "special interest group", and "involvement with university as an alumnus/a"). None of the philanthropic variables discriminated between the donor and non-donor groups. Group membership as

donors or non-donors was predicted using the standardized canonical coefficients of the selected variables as criteria.

In this study, 65% (N=242) of the cases were correctly classified by group. That is, 70% (N=113) of the actual non-donor cases were correctly classified, while 61% (N=129) of the actual donors were predicted correctly (Table 2).

Table 2. Classification Results for Donor Status

Actual Group	Predicted Group Membership			
	Non-Donors		Donors	
	N	%	N	%
Non-Donors (N=161)	113	70.2	48	29.8
Donors (N=210)	81	38.6	129	61.4
Grouped Cases Correctly Classified by Donor Status	65.23%			

This study compares favorably with similar studies for different alumni populations. For example, the correct classification rates of the donors and non-donors in other studies are Shadoian (1989) at 69%; Grill (1988) at 81%; and Beeler (1982) with 64%.

The second research question examined the ability of selected attitudinal, demographic, involvement, and philanthropic variables to discriminate alumni high-donors from low-donors (Table 3).

Table 3. Canonical Discriminant Function for Donor Level

total cases = 82	high-donor group = 43	low-donor group = 39
canonical correlation	Wilks' lambda	chi-square
0.7427073	0.4483858	61.361*
variable order of entry		standardized canonical coefficient
Subsequent enrollment for graduate work		-0.67032
Family income		-0.66295
Perceived need for financial support		0.53398
Involvement with university as an alumnus/a		0.52019
Greek system		0.39744
Departmental club or organization		0.39046
Religious preference		-0.27068

*Significant at the .05 Level

Seven of the selected variables discriminated between the high-donor and low-donor groups. One of the attitudinal variables discriminated between the high-donor and low-donor groups ("perceived need for financial support"). Three of the demographic variables discriminated between the high-donor and low-donor groups ("family income", "subsequent enrollment for graduate work", and "religious preference"). Three of the involvement variables discriminated between the high-donor and low-donor groups ("involvement with university as an alumnus/a", "departmental club or organization", and "greek system"). None of the philanthropic variables discriminated between high-donor and low-donor alumni. Group membership as high-donors or low-donors was predicted using the standardized canonical coefficients of the selected variables as criteria.

In this study, 87% (N=71) of the cases classified correctly by group using the standardized canonical coefficients as criteria. The program predicted membership for the alumni high-donor and low-donor cases as 86% (N=37) of the actual high-donor cases and 87% (N=34) of the actual low-donor cases were classified correctly (Table 4).

Table 4. Classification Results for Donor Level

Actual Group	Predicted Group Membership			
	Low-Donors		High-Donors	
	N	%	N	%
Low-Donors (N=39)	34	87.2	5	12.8
High-Donors (N=43)	6	14.0	37	86.0
Grouped Cases Correctly Classified by Donor Level	86.59%			

The classification results also compare favorably to previous research on donor level with different populations. The percentage of correct classifications of membership in the high-donor or low-donor groups were as follows: Shadoian (1989) at 69%; Grill (1988) at 68%; and Beeler (1982) at 75% for the classification analysis.

The findings support predictability of donor status and donor level based on selected attitudinal, demographic, involvement, and philanthropic characteristics. The moderate to high result of 65% (N=242) in predicting group membership for donor status and the extremely high result of 87% (N=71) in predicting group membership for donor level indicate the benefit to be gained from expanding the knowledge of all alumni. This increased knowledge about alumni donors will guide the development of strategies necessary

to increase the number of alumni donors by reducing the number of non-donor alumni. Consequently, the next step will be to increase the level of giving by the donor group. The success of the classification analysis in this study reinforces the importance of knowing more about the alumni to an extent that improves the likelihood of donors increasing the level of their giving to the university.

Donor status

The attitudinal variable "perceived need for financial support" was retained in the discriminant function for donor status. Of the donors, 39% indicated that the university has a strong need for financial support from alumni.

Two of the demographic characteristics included in this study discriminated alumni donors from non-donors of the study university. "Family income" was the most powerful predictor of donor status, with 28% of the donors and 29% of the non-donors indicating that their family income was in the $50,000-$74,999 range. The second most powerful discriminator of donor behavior was the variable "subsequent enrollment for graduate work," where the majority of non-donors (57%) indicated that they had continued their graduate work after receiving a degree from the university.

Three involvement characteristics entered the discriminant function as predictors of donors' status. The most powerful predictor out of the involvement characteristics was "reading alumni publications," and 38% of the donors indicated a regular reading of the alumni material sent to them. The second involvement characteristic to enter the discriminant function was the variable "special interest group," with 29% of the donors indicating participation in an activity of this nature. The third involvement characteristic

retained as a predictor of donor status was "involvement with university as an alumnus/a," with 16% of the donors indicating some type of involvement in alumni activities.

None of the philanthropic characteristics entered the discriminant function as predictors of donor status.

Donor level

Only one of the attitudinal characteristics entered the discriminant function as a discriminator between high-donors and low-donors. "Perceived need for financial support" was retained as a predictor of donor level, with 61% of the high-donors indicating that the university has a strong need for financial support from alumni.

Three of the alumni demographic characteristics entered the discriminant function as predictors of donor level. The most powerful predictor was "subsequent enrollment for graduate work," with 54% of the low-donors responding affirmatively to the question of additional graduate work at another university. The second most powerful predictor was "family income", with 14% of the high-donors indicating both the $50,000-$74,999 range and the $100,000-$124,999 range. The variable "religious preference" was the third predictor retained in the discriminant function and 58% of the high-donors identified themselves as protestant.

Three of the involvement characteristics entered the discriminant function. The most powerful involvement predictor of donor level was the variable "involvement with university as an alumnus/a," with 30% of the high-donors indicating some type of involvement in alumni events. The second most powerful involvement characteristic was "greek system," with 23% of the high-donors indicating membership in a fraternity or sorority. The third

most powerful predictor of donor level was "departmental club or organization," with 30% of the high-donors indicating such involvement in this activity.

None of the philanthropic characteristics discriminated high-donors from low-donors in this study.

Summary

Donor or non-donor status for alumni at one Research I, public university was predicted with a moderate-to-high degree of accuracy. The most powerful discriminating variables between alumni donors and non-donors within the population examined were: "family income", "perceived need for financial support", "reading alumni publications", "subsequent enrollment for graduate work", "special interest group", and "involvement with university as an alumnus/a." The most powerful discriminating variables between high-and low-donors within the population examined were: "subsequent enrollment for graduate work", "family income", "perceived need for financial support", "involvement with university as an alumnus/a", "greek system", "departmental club or organization", and "religious preference."

Professionals in college and university development offices should consider the feasibility of collecting information on alumni to predict more accurately donor status and donor level. The overall cost of data collection must be weighed against the potential increase in not only the percentage of alumni who contribute, but also the size or frequency of the contribution. Development offices should consider organizing an institutional research function to help identify information needs, define data collection procedures, and conduct analysis for planning and decision making which improve the number of donors and

amount of giving. University development and alumni offices should work collaboratively in inviting alumni to participate in events that parallel activities reflective of alumni interests during their time as students. By addressing alumni interests, past and present, the level of alumni involvement with the university will increase.

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